

BELIYAVSKIY, V.V.; KORCHINSKIY, A.I.; STABNIKOV, V.N.

Food industry in the seven-year plan (1959-1965). Trudy KTIPP
no.20:3-7 '59. (MIRA 13:12)
(Food industry)

KORCHINSKIY, A.I.

Sugar industry in Russia at the period preceding the Great October
Socialist Revolution. Trudy KTIPP no.20:65-78 '59. (MIRA 13:12)
(Sugar industry)

KORCHINSKIY, A.I.

New book on the economics of the sugar industry. Sakh.prom. 33
no.7:77-78 J1 '59. (MIRA 12:11)
(Sugar industry)

KORCHINSKIY, A.I.

V.I. Lenin on the monopoly of sugar industrialists and the
nationalization of the sugar industry. Trudy KTIPP no.23:3-8
'60. (MIRA 15:1)

(Sugar industry)

KORCHINSKIY, A.I.

Sugar industry of the Ukraine during the years of the Great
Patriotic War and its development in the postwar period
1941-1958). Trudy KTIPP no.23:46-56 '60. (MIRA 15:1)
(Ukraine—Sugar industry)

KORCHINSKIY, A.I.

Technical and economic literature on the sugar industry. Sakh.prom. 35
no.6:78-79 Je '61. (MIRA 14:6)

(Technical libraries)
(Sugar industry)

L 00620-67 EWT(d)/EWT(m)/EWP(k)/EWP(h)/EWP(v)/EWP(l) IJP(c) BC

ACC NR: AP6008316

SOURCE CODE: UR/0280/66/000/001/0031/0040

AUTHOR: Korchinskiy, A. V. (Moscow); Minsker, I. N. (Moscow); Talitskaya, Ye. A. (Moscow)

ORG: None

TITLE: The optimization of the couplings between sectors in chemical production

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1966, 31-40

TOPIC TAGS: chemical production, optimal control, dynamic programming

ABSTRACT: Large modern chemical production enterprises have a complex multibranched structure. The optimal control of such production is not restricted to the optimization of the separate technological processes and sectors, but should assure the coordinated operation of the branches of production. The present authors investigate a complex technological plant consisting of n interrelated sectors. Every sector is characterized by the following vector parameters: input x_i , output y_i , control action w_i , and uncontrolled action v_i . All four quantities are considered measurable. The authors specifically investigate the possibility of using the method of dynamic programming for solving the problem of the optimal control of complex multibranched production. Ammonia production and an oxygen station which obtains oxygen from the atmosphere are examples treated in detail to demonstrate the method. Orig. art. has: 13 figures and 30 formulas.

SUB CODE: 07,12/ SUBM DATE: 11Jul64/ ORIG REF: 001/ OTH REF: 003

Card 1/1 pb

S/119/60/000/07/01/017
B019/B063

AUTHOR: Korchinskiy, A. V., Engineer

TITLE: Automation of the Synthesis of Ammonia With Preliminary
Catalysis 1

PERIODICAL: Prihorostroyeniye, 1960, No. 7, pp. 1-5

TEXT: The system of automation described in the present paper is schematically shown in Fig. 1. First, the author discusses well-known details of ammonia synthesis with special regard to the preliminary catalysis. The following quantities are used as parameters for the automation of this process: the temperature in the zone of catalysis, pressure of the nitrogen - hydrogen mixture, percentage composition of the circulating mixture, the filling of the unit with the circulating mixture, temperature of the secondary condensation, and the pressure of the gaseous ammonia in the evaporator. The regulation comprises the consumption of the circulating mixture in the second cold by-pass, consumption of the circulating mixture in the first cold by-pass, temperatures in the reaction zones of these by-passes, consumption and temperature in the reaction zone of the hot

Card 1/3

Automation of the Synthesis of Ammonia With Preliminary Catalysis S/119/60/000/07/01/017
B019/B063

by-pass, consumption of liquid ammonia from the evaporator, temperature of the secondary condensation, and the temperature of the hot reaction zone in the evaporator. The development of temperature in the various parts of the unit with different "output loads" is diagrammatically shown in Figs. 2 and 3. The control characteristics are discussed on the basis of these diagrams. The amplitude-phase characteristics of the control channels are diagrammatically represented in Figs. 4 and 5. In this connection the author refers to a suggestion made by Engineer M. P. Simoyu. He discusses further details of the unit and examines the results obtained from tests of such an experimental unit in a nitrogen factory. The pressure regulation of the gaseous ammonia in the evaporator is diagrammatically represented in Fig. 6. It may be seen that the error in pressure regulation does not exceed 0.1 atm at a rated pressure of 2.2 atm. The error in temperature regulation does not exceed 1°C. The economic advantages of this unit are enumerated, which was awarded the first prize in the Vsesoyuznyy konkurs ratsionalizatorov i izobretateley (All-Union Competition of Efficiency Experts and Inventors). This competition was organized by GKhK, VTsSPS, TsK VLKSM, and other organizations. The unit was installed by B. G. Ovcharenko, N. M. Vosvilov, N. S. Bereznitskiy from the factory mentioned, as well as

Card 2/3

KORCHINSKIY, A.V., inzh.; ZAKHAROV, A.N., inzh.

Automation of ammonia production processes. Mekh. 1 avtom. proizv 15
no.3:10-14 Mr '61. (MIRA 14:3)
(Automation) (Ammonia)

KORCHINSKIY, A.V.

Dynamic characteristics and automatic control of apparatus for ammonia synthesis. Trudy MIKHM 25:66-79 '63.

(MIRA 17:6)

KORCHINSKIY, A.Y. [Korchyns'kyi, A.I.]; SALASIN, K.I.; DEREVETS', S.,
red.; LAGUTIN, I. [Lahutin, I.], tekhn. red.

[Sugar industry of the Ukraine] TSukrova promyslovist'
Ukrainy. Kyiv, Derzh. vyd-vo tekhn. lit-ry, URSR, 1960. 1 v.
(MIRA 15:2)

(Ukraine--Sugar industry)

KORCHINSKIY, G. H.

Properties of thin liquid films between mica leaflets
(G. A. Korchinskiy, State Univ. Chemistry) Kolloid
Zh. 19, 807-10 (1957).—Two parallel mica leaflets im-
mersed in H_2O repelled each other with a pressure P that
reached 5 g./sq. cm. when the distance λ between the leaflets
was 0.0001 cm. and was still measurable at $\lambda = 0.001$ cm.
in AcOH, EtCO₂H, and PrCO₂H increased P , but P at
high concns. (e.g., 2*N*) of AcOH was again near the P in
 H_2O . Usually, $\pi P + P_2$ was const. λ in H_2O was
157

KORCHINSKIY, G.A. (Vinnitsa)

Electrocapillary curves on mercury of ethanol solutions of hydrogen chloride and sodium iodide. Zhur. fiz. khim. 34 no.12:2759-2765 D '60. (MIRA 14:1)

1. Vinnitskiy pedagogicheskiy institut.
(Hydrochloric acid) (Sodium iodide)

KORCHINSKIY, G.A.

Adsorption on a mercury surface in ethyl alcohol solutions of
oleic, elaidic, and stearic acids. Ukr.khim.zhur. 28 no.4:473-
477 '62. (MIRA 15:8)
(Acids, Fatty) (Adsorption)

KORCHINSKIY, G. A.

Electrocapillary curves on mercury of acetonitrile solutions.
Ukr. khim. zhur. 28 no.6:693-698 '62. (MIRA 15:10)

1. Vinnitskiy pedagogicheskiy institut.

(Electrocapillary phenomena) (Mercury)
(Acetonitrile)

KORCHINSKIY, G.A.

Use of the electrocapillary method for determining the
structure of unsaturated organic acids. Zhur.ob.khim. 32
no.9:2766-2770 S '62. (MIRA 15:9)

1. Vinnitskiy pedagogicheskiy institut.
(Acids, Organic)

KORCHINSKIY, G.A.

Special features of the electrocapillary behavior of cis- and trans-forms of unsaturated acids. Ukr. khim. zhur. 29 no. 1031-1035 '63. (MIRA 17:1)

1. Vinnitskiy pedagogicheskiy institut.

~~L-18324-63~~ ~~ELT(1)/BDS - AFETQ/ASD/ESD-3~~

ACCESSION NR: AP3004991

S/0076/63/037/008/1920/1921

AUTHORS: Korchinskiy, G. A.; Andrianov, V. M.

TITLE: Electrocapillary effect in electromagnetic field

SOURCE: Zhurnal fiz. khimii, v. 37, no. 8, 1963, 1920-1921

TOPIC TAGS: phase discontinuity, electrocapillary effect,
electromagnetic field, capillary electrometer, KCl,
mercury, ultrasonic agitation

ABSTRACT: The effect of ultrasonic agitation² on the discontinuity of the solution-metal phases and the appearance of an electric voltage between the phases was studied with a capillary electrometer using a normal solution of KCl and mercury. The increase in the electromagnetic field potential with time of agitation was explained by the change of adsorption on the interface caused by the electromagnetic field. The voltage leads to a sharp change in the surface tension, causes rapid movement of Hg in the column forming spaces in the Hg column confined by the Hg

Card 1/2

L-18324-63

ACCESSION NR: AP3004991

surface above and solution surface below. The charges on these surfaces discharge when the surfaces come together again. Stable bubbles, up to 0.02 cm in diameter, of the liquid vapors and their decomposition products are also formed in the system. Orig. art. has: 2 figures.

ASSOCIATION: Vinnitskiy pedinstitut (Vinnitskiy pedagogical institute)

SUBMITTED: 07May62

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH, CH

NO REF SOV: 003

OTHER: 002

Card

2/2

KORCHINSKIY, I.L.; BECHENEVA, G.V.

Strength of aluminum alloys subject to dynamic loads. Prom.
stro1. 40 [i.e. 41.] no.3:43-46 Mr '63. (MIRA 16:3)
(Aluminum alloys--Testing)

KORCHINSKIY, I. I.

29621

Gorieontal' nye popyeryechnyye kolyehaniye Ramnykh fundamyentov. Inzh. Sbornik (akad. Nauk SSSR. In-t myekhaniki), T.V. vvp.2, 1949, S.133-47.-Bibliogr:17 Naev.

BUGOVSKOY, M.V. Myekhanieatsiya stroityel'stvanyeotlozhnoye Myeropriyatiye Dlya Dal'Nyeyshego Raevitiya Skel'skoy Elyektrifikatsii.-SM.29737

SO: Letopis' No.40

KORCHINSKIY, I. L.

KORCHINSKIY, I. L. "The significance of nonelastic properties of structural designs in applied dynamics", Stroit. prom-st', 1949, No. 5, p. 22-24.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

1. KORCHINSKIY, I. L.

2. USSR(600)

4. Skyscrapers

7. Vibrations of tall buildings. Stroiprom. 30 no. 11., Nov., 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

KORCHINSKIY

1342 Korchiński, L.L. Oscillations of high buildings. *Trudy Vsesoyuznogo Nauchno-Issledovatskogo Instituta Stroyeniya* no. 11, 1-41, 1953; Rev. no. 498, Ref. Zh. Stroyeniya, 1956

Results are given of the theoretical and experimental investigation of the free oscillations of 3 high buildings in Moscow. The maximum amplitudes of the free horizontal oscillations of these high buildings at the level of their upper stories during the period of observation did not exceed 0.15 to 0.25 mm. The frequencies of the fundamental free oscillations of all the buildings investigated were approximately identical in both directions of their main axes in plan view, and amounted to 0.60, 0.70, and 0.84 cps. The shear deformation is predominant.

The actual lateral rigidities of these high buildings with small wind loads exceeded the calculated rigidities of their frameworks by approximately 5 to 20 times, which indicates the considerable participation of the filling in of the framework in resistance to the displacing forces.

An approximate formula is given for estimating the frequency of the free oscillations.

A. G. Nazarov, USSR

Courtesy of Referativnyi Zhurnal

translation, courtesy Ministry of Supply, England

Struct

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SOV/124-58-3-3382

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 116 (USSR)

AUTHOR: Korchinskiy, I. L.

TITLE: Consideration of Fatigue Phenomena in Building Structures
(Uchet yavleniya ustalosti v stroitel'nykh konstruktsiyakh)

PERIODICAL: Nauchn. soobshch. Tsentr. n.-i. in-ta prom. sooruzh.,
1956, Nr 25, 72 pp, ill.

ABSTRACT: Practical recommendations are given for the design of steel, reinforced-concrete, and wood structures subjected to static and cyclic loads, the combined action of which is characterized by nonsymmetrical cycles. It is recommended that linear laws be employed which may be reduced to the following formulae:

$$\alpha_m \sigma_m + \mu \alpha_a \sigma_a \leq |\sigma|, \quad \sigma_m + \sigma_a \leq |\sigma|,$$

where σ_m and σ_a are respectively the mean and amplitude values of cycle stresses; $|\sigma|$ is the stress permissible under static loads; α_m and α_a are coefficients characterizing the properties of materials involved; μ is a coefficient which

Card 1/2

SOV/124-58-3-3382

Consideration of Fatigue Phenomena in Building Structures

designates the type of construction and is employed in the analysis of cyclic loads acting on it. Recommended numerical values of the coefficients are given.

N. N. Davidenkov

Card 2/2

97-10-4/14

AUTHORS: Korchinskiy, I. L., Dr. of Mech. Sciences, Professor; Sudnitsyn, A.I. and Bykhovskiy, V.A. (Candidates of Mech. Sciences).

TITLE: Calculation of Reinforced Concrete Industrial Chimneys Built in Seismic Regions. (Raschet zhelezobetonnykh dymovykh trub, sooruzhayemykh v seysmicheskikh rayonakh).

PERIODICAL: Beton i Zhelezobeton, 1957, Nr.10. pp. 396 - 402. (USSR).

ABSTRACT: Chimneys of industrial buildings built in siesmographic areas are very expensive. Investigations were oarried out after an earthquake in Japan in 1948 into the destruc- tion of reinforced concrete chimneys in Fukun. Table 1 shows that in the case of short chimneys (15 - 20m) cracks usually appear in the base, and in the case of taller chimneys (29 - 52 m), they appear in the upper parts. The method of calculations of chimneys built in siesmographic areas is published in Ts.N.I.P.S. The calculation is based on the theory that the rocking of the ground produces the same effect as an earthquake, this is according to the thesis of A. I. Sudnitsyn "The Rocking of Stacks of Varying Cross-Section, With Allowance for Displacement Deformation and Support Resi- ience". Fig.1 shows a graph of the relationship of the dynamic coefficient and of amplitudes of rocking.

Card 1/3

97-10-4/14

Calculation of Reinforced Concrete Industrial Chimneys Built in
Seismic Regions

Fig. 2 shows nomograms for the determination of parameter V_{an} for various types of rocking. Fig. 3 illustrates nomograms for the determination of the coefficients C_2 , C_1 and C_3/C_1 for various types of rocking. V.S. Pavlyk has made a comparative calculation of a chimney stack in Aschabad affected by an earthquake. The calculation was based on the method recommended by P.S.P. 101-51 Ts.N.I.P.S. The results show that the upper parts of the stack are more affected when the rocking is of the second and third "type", as shown on the diagram. For the calculation of reinforced concrete chimney stacks indicated in this article, stress diagrams were used according to Fig. 4, representing the distribution of stresses, height of the stack and type of rocking. Fig. 5 shows bending diagrams of transfer stresses and bending moments occurring in a reinforced concrete stack 80 m high. Fig. 6 gives curves of bending moments due to earthquake action on a chimney stack. Calculations of amplitudes and forms of rocking affecting stacks are given. Table 3 gives coefficients for various types

Card 2/3

97-10-4/14

**Calculation of Reinforced Concrete Industrial Chimneys Built in
Seismic Regions**

of rocking, and an example of calculation determining the rocking is presented. Table 4 gives various values for calculations. Finally, siesmographic forces are calculated and coefficients which are used are explained with the aid of Tables No.5, 6 and 7. There are 7 Tables, 6 Figures, 5 References: 1 Japanese, and 4 Russian.

AVAILABLE: Library of Congress.

Card 3/3

1. Earthquake resistant structures-Design
2. Chimneys-Design
3. Reinforced concrete-Applications

ONISHCHIK, L.I., prof., doktor tekhn.nauk; ~~KORCHINSKIY, I.I., prof., doktor~~
tekhn.nauk; BYKHOVSKIY, V.A., kand.tekhn.nauk; POLYAKOV, S.V.,
kand.tekhn.nauk; DYKHOVICHNAYA, N.A., insh.; YUSFIN, I.M., insh.;
DUZINKOVICH, S.Yu., insh., nauchnyy red.; MUNITZ, A.P., red.isd-va;
BOROVNEV, N.K., tekhn.red.

[Strength analysis of bearing masonry walls of buildings to be
constructed in seismic regions and instructions for performing
the analysis] Primer rascheta na prochnost' kamennykh nesushchikh sten
sdanii, vosvodimykh v seismicheskikh rayonakh, i ukazaniya k primeru
rascheta. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit.
materialam, 1958. 24 p. (MIRA 12:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroi-
tel'nykh konstruktsey. 2. Tsentral'nyy nauchno-issledovatel'skiy
institut stroitel'nykh konstruktsey Akademii stroitel'stva i
arkhitektury SSSR (for Onishchik, Korchinskiy, Bykhovski, Polyakov).
 3. Proyektnyy institut No.5 Ministerstva stroitel'stva RSFSR (for
Dykhovichnaya, Yusfin).
- (Earthquakes and building) (Walls)

KORCHINSKIY, I.L., doktor tekhn. nauk.

Bearing capacity of materials under infrequent reloadings. Biul.
stroil. tekhn. 15 no.3:19-22 Mr '58. (MIRA 11:3)

1. Vsesoyuznyy zaochnyy politekhnicheskiy institut.
(Metals--Fatigue) (Strains and stresses)

KORCHINSKIY, I.L., prof., doktor tekhn.nauk; KOVAL'CHUK, M.P., inzh.,
red.; BORODINA, I.S., red.isd-va; SOLNTSEVA, L.M., tekhn.red.

[Seismic stresses on buildings and structures; a manual for
the calculation of earthquake activity in connection with
building] Seismicheskie nagruzki na zdaniia i sooruzheniia;
posobie dlia osvoeniia metoda rascheta stroitel'nykh kon-
struktsii na seismicheskie vozdeistviia. Moskva, Gos.isd-vo
lit-ry po stroit., arkhit. i stroit.materialam, 1959. 77 p.
(MIRA 12:7)

(Earthquakes and building)

KORCHINSKIY, I.L.; POLYAKOV, S.V. (Moskva)

Designing stone walls for construction in seismic regions.
Stroi.mekh. i rasch.soor. 1 no.3:20-23 '59. (MIRA 12:8)
(Walls) (Earthquakes and building)

KORCHINSKIY, I.L., kand. tekhn. nauk

Significance of nonelastic properties of structural elements for
applied dynamics. Stroil. prom. 27 no.5:22-3 of cover My '59.
(MIRA 13:2)

(Structures, Theory of) (Dynamics)

NASONOV, V.N.; BYKHOVSKIY, V.A.; DZHABUA, Sh.A.; DUZINKEVICH, S.Yu.;
KORCHINSKIY, I.L.; POLYAKOV, S.V. ; STEPANYAN, V.A.

Ways of lowering construction costs of industrial buildings to be
erected in seismic regions. Prom.stroi. 37 no.8:20-23 Ag '59.
(MIRA 12:11)

(Construction industry—Costs) (Earthquakes and building)

"Design of Earthquake-Proof Building Structures in the USSR."

report submitted for the Second World Conference on Earthquake Engineering, Tokyo and Kyoto, Japan, 11-18 July 1960.

KORCHINSKIY, I.L.

PHASE I BOOK EXPLOITATION

SOV/4658

Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruksiy

Issledovaniya po seymostoykosti zdaniy i sooruzheniy; sbornik statey (Research on Earthquake-Resistant Buildings and Constructions; Collection of Articles) Moscow, Gosstroyizdat, 1960. 246 p. 5,000 copies printed.

Sponsoring Agency: Akademiya stroitel'stva i arkhitektury SSSR. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruksiy (TsNIISK).

Eds.: I.I. Gol'denblat, Doctor of Technical Sciences, Professor; I.L. Korchinskiy, Doctor of Technical Sciences, Professor; and V.A. Bykhovskiy, Candidate of Technical Sciences; Scientific Ed.: L.Ye. Temkin, Engineer; Ed. of Publishing House: I.S. Borodina; Tech. Ed.: L.M. Osenko.

PURPOSE: This collection of articles is intended for design and construction engineers, scientific workers, and aspirants.

COVERAGE: The book contains articles on experimental and theoretical investigations of the earthquake stability of buildings and structures carried out at the Central Scientific Research Institute of Structural Parts of the Academy of Building and
Card 1/7

APPROVED FOR RELEASE: 06/14/2000

Research on Earthquake-Resistant Buildings (Cont.) CIA-RDP86-00513R000824610010

Architecture USSR. The foreign and Soviet norms in force for calculating seismic effects in the design and construction of buildings and structural parts are compared, and also problems in the seismic zoning of the USSR are examined. One article describes an investigation of the strength of steel subjected to several recurrent loadings; and of the dynamic behavior of building models. Problems in the determination of the free oscillations of buildings and in the distribution of horizontal seismic loads between the cross walls of buildings are also discussed. The projected "Instructions for Determining the Computed Seismic Loads for Buildings and Structures" based on the current "Norms and Rules for Construction in Seismic Regions" (SN 8-57) are given. No personalities are mentioned. References accompany individual articles.

TABLE OF CONTENTS:

Preface

3

Korchinskiy, I.L. [Professor, Doctor of Technical Sciences]. Comparison of Design Norms in Force in the USSR and in Other Countries for Calculating Seismic Effects

5

Card 2/7

Research on Earthquake-Resistant Buildings (Cont.)

SOV/4658

This article gives the theoretical basis of the new dynamic method of designing buildings and structures to withstand seismic effects. This method has been adopted in the USSR and is formulated in the "Norms and Rules of Construction in Seismic Regions, SN 8-57." The author compares it with methods used in other countries, especially in the USA and Japan, and compares the values of seismic coefficients accepted in various countries (Table 1). He concludes that the proposed design method will not result in any change in construction costs in the USSR, and that it will at the same time make it possible to increase the seismic stability of structures. He points out that the method formulated in the California Code for determining design seismic forces is close to the method, which serves as the basis for SN 8-57.

Bykhovskiy, V.A. [Candidate of Technical Sciences] Changes in the Seismic Regionalization of the USSR and Evaluation of Individual Localities 25

The article discusses the seismic regions of the USSR and the changes in the seismic regionalization of the USSR which have taken place in the last 20 years. These changes are reflected in the Norms and rules for seismic construction in the Soviet Union. There are seven tables of data: Table 1 gives approximate data on the seismic regions of the USSR, and their seismic magnitudes; Table

~~Card 3/7~~

GOL'DENBLAT, I.I., doktor tekhn.nauk; KORCHINSKIY, I.L., doktor tekhn.
nauk; BYKHOVSKIY, V.A., kand.tekhn.nauk

Designing and calculating earthquake-proof construction elements.
Izv. ASIA no. 3:95-107 '60. (MIRA 13:12)
(Earthquakes and building)

S/165/60/000/005/002/003
A104/A129

AUTHORS: Korchinskiy, I.L.; Becheneva, G.B.

TITLE: Fatigue strength of metal subjected to a limited number of recurrent loads

PERIODICAL: Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 5, 1960, 130 - 137

TEXT: In 1957 G.V. Becheneva from the Institut antiseymicheskogo stroitel'stva AN TSSR (Institute of Antiseismic Construction of the AS TSSR) conducted investigations as to the strength of steel subjected to a limited number of recurrent loads at velocities similar to those occurring during earthquakes. The tests were carried out in the TsNIISK (Central Scientific Research Institute of Seismic Construction) on a Ct-3 (St-3) steel rod of 10 mm diameter and 82 mm length. Mechanical and chemical properties are given in Table 2. The purpose of these tests was to investigate the hypothesis proposed by V.P. Kogayev [Ref. 6: Nekotoryye voprosy ustalostnoy prochnosti stali (The fatigue strength of steel). Symposium under the editorship of N.N. Davidenkov, Mashgiz, 1953], which assumed

Card 1/6

S/165/60/000/005/002/003
A104/A129

Fatigue strength of metal subjected to....

that at loading velocities similar to regular oscillations of constructions the relation $\sigma_{zk} - lgn$ may conform very closely to the linear law. The specimen were subjected to recurrent loads up to 500 - 1,000 at velocities close to oscillation velocities of constructions. The fatigue strength of metal at minimum recurrent load will be tested by subjecting the specimen to a rapid single impact but at velocities differing strongly from those applied during impact strength tests. The static strength will be determined by tensile strength tests, in order to compare data obtained in respect of cyclic (σ_{zk}) and single (σ_g) loads with static strength R_m . An open-side pulsator producing impact effects ranging from 0 - 35 t at 300 impacts per minute (5 cps) was used. Occurring stress was controlled by a specially designed dynamometer of Ct-4 (St-4) steel annealed at 38 Rc. Proper dimensions of the section ensure that maximum ultimate stress in the sample does not exceed the elastic limit of the dynamometer. Figure 3 shows the results of single load tests. In accordance with this problem, the relation between the fatigue strength of metal and the number of load cycles was determined. In order to reduce the time required by the test machine to gain the necessary momentum, one end of the specimen was held by the immobile upper holding device while the other end was left loose; when the momentum was reached, the loose end was secured and the specimen switched into the process. Results of

Card 2/6

S/165/60/000/005/002/003
A104/A129

Fatigue strength of metal subjected to....

cyclic load tests with asymmetry coefficient $p = 0$ are shown. Results of these tests confirm earlier findings in respect of St. 3 steel listed in Ref. 9 [Normy i pravila stroitel'stva v seysmicheskikh rayonakh (SN-8-57 (Construction standards and regulations in seismic areas))]. Conclusions: The fatigue strength of metal subjected to single loads increases with rising velocities, i.e., impact ~ 0.5 sec = fatigue strength $\sim 1.2 R_{nn}$. The relation between the number of impacts and fatigue strength of limited load cycles (up to 1,000) depends on the impact velocity. At velocities of 5 cps no refraction of the straight $\sigma_{zk} - \lg n$ was observed. The determination of the fatigue strength of steel at loads not exceeding $6 \cdot 10^6$ cycles and minimum velocities of 5 cps is carried out according to

$$\sigma_{zk} = \sigma_z + (R - \sigma_z) \frac{\lg n_0 - \lg n_k}{\lg n_0}, \quad (1)$$

σ_{zk} is the fatigue strength at any number of cycles (not exceeding $6 \cdot 10^6$);
 $\lg n_k$ - logarithm of the number of cycles corresponding to σ_{zk} (up to $6 \cdot 10^6$);
 R - ultimate strength at corresponding impact velocity; σ_z - endurance limit;
 $\lg n_0$ - logarithm of the number of cycles corresponding to the endurance limit.
 There are 2 tables, 5 figures and 22 references: 12 Soviet-bloc and 10 non-Soviet-bloc. The references to the English-language publications read as follows:
 F.B. Fuller and M.M. Oberg, Proc. ASTM, v. 47, 1947; Moore, Proc. ASTM. v. 45,

Card 3/6

S/165/60/000/005/002/003
A104/A129

Fatigue strength of metal subjected to....

1941; Phillips Hairwood, Proc. Inst. Mach. Eng., London, 1951; J.C. Straub, D. May Jr., Iron Age, v. 163, no. 16, 1949; M.N. Weissman; M.N. Kaplan, The fatigue strength of steel through the range from 1/2 to 30,000 cycles of stress. Proc. ASTM. v. 50, 1950.

ASSOCIATION: Institut antiseizmicheskogo stroitel'stva AN Turkmanskoy SSR (Institute of Antiseismic Construction of the AS Turkmanskaya SSR)

SUBMITTED: December 25, 1959

Card 4/6

KORCHINSKIY, I.L., prof., doktor tekhn. nauk; POLYAKOV, S.V., doktor tekhn. nauk; BYKHOVSKIY, V.A., kand. tekhn. nauk; PAVLYK, V.S., inzh.; YUSFIN, I.M., inzh.; AVEDIKOVA, S.A., inzh.; IFTINKA, G.A., red. izd-va; GOL'BERG, T.M., tekhn. red.

[An example of earthquake design of a multi-story frame building with and without enclosure walls with attached instructions] Primer rascheta mnogoetazhnogo karkasnogo zdaniia so stenovym zapolneniem i bez nego na seismicheskie vozddeistviia i ukazaniia k primeru rascheta. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 66 p. (MIRA 14:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktсий Akademii stroitel'stva i arkhitektury SSSR (for Korchinskiy, Polyakov, Bykhovski, Pavlyk). 2. Proyektnyy institut No.5 Ministerstva stroitel'stva RSFSR (for Yusfin, Avedikova). (Earthquakes and building)

KORCHINSKIY, I.L., prof.; POLYAKOV, S.V.; BYKHOVSKIY, V.A.; DUZINKOVICH,
S.Yu.; PAVLYK, V.S.; BEGAK, B.A., red. izd-va; SHERSTNEVA, N.V.,
tekhn. red.

[Principles of designing buildings in earthquake districts] Osnovy
proektirovaniia zdaniil v seismicheskikh raionakh; posobie dlia pro-
ektirovshchikov. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i
stroit. materialam, 1961. 487 p. (MIRA 14:12)
(Earthquakes and building)

BYKHOVSKIY, V.A.; GOL'DENBLAT, I.V.; KORCHINSKIY, I.L. (Moskva)

Building requirements for seismic stresses. Stroi.mekh.i rasch.soor.
3 no.2:11-16 '61. (MIRA 14:5)

(Earthquakes and building)

S/169/62/000/001/008/083
D228/D302

AUTHORS: Bykhovskiy, V. A., Korchinskiy, I. L. and Pavlyk, V. S.

TITLE: The earthquake of May 4, 1959, at the town of Petro-pavlovks-na-Kamchatke

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 15-16, abstract 1A158 (Tr. Tsentr. n.-i. in-ta stroit. kon-struktsiy, Akad. str-va i arkhitekt. SSSR, no. 6, 1961, 5-38)

TEXT: The earthquake's epicenter was situated in the ocean at a distance of 170 km from the coast. The coordinates of the epicen-ter were 53°45'N and 161°E, the focal depth being 30 km. The (SBM) seismometer showed a deflection of 4.8 mm. More than 100 shocks with a force of 2 - 4 points were noted in the period from May 1 to July 1. The areas of strong damage are located in lowlying localities with a datum of from +10 to +20 m. The groundwaters stand relatively high in these districts. Considerable nature was noted, too, on dredged water-saturated ground. Buildings located

Card 1/2

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824610010

S/169/62/000/001/008/083
D228/D302

The earthquake of May 4 ...

on rocky and semirocky ground were hardly damaged. The damage to small-block buildings was expressed by oblique cracks in the walls, partitions, and bulkheads. Assembled ceilings had small cracks in the joints between the floorings. In large-block buildings the da-mage was expressed by horizontal cracks in the joints between the partition blocks and by vertical cracks along the facets of window openings. Framework buildings endured the earthquake better. /Ab-stractor's note: Complete translation. /

Card 2/2

BYKHOVSKIY, V.A.; KORCHINSKIY, I.L.; PAVLYK, V.S.

Earthquake in Petropavlovsk-Kamchatskiy on May 4, 1959.

Trudy TSNIISK no.6:5-38 '61.

(MIRA 15:1)

(Petropavlovsk-Kamchatskiy--Earthquakes, 1959)

KORCHINSKIY, I.L.

Approximate determination of seismic vibrations in very
long structure. Trudy TSNIISK no.6:73-90 '61. (MIRA 15:1)
(Bridges)
(Earthquakes and building)

KORCHINSKIY, I.L., doktor tekhn.nauk, p rof.; BYKHOVSKIY, V.A., kand.tekhn.nauk.

"Structural designs and joints of large-panel buildings for seismic districts" by A.L. Churaian, Sh. A. Dzhabu. Reviewed by I.L.

Korchinskii, V.A. Bykhovskii. Bet. i zhel.-bet. 8 no.5:244 My '62.

(MIRA 15:6)

(Earthquakes and building)

(Churaian, A.L.) (Dzhabu, Sh.A.)

KORCHINSKY, I.L.

Problem of the precision of design for seismic effect. Trudy
TSNIISK no.18:20-41 '62. (MIRA 16:2)
(Earthquakes and building)

KORCHINSKIY, I.L.

Effect of the plane extension of a building on the intensity of
the seismic load acting on it. Trudy TSNIISK no.18:42-50 '62.
(MIRA 16:2)

(Earthquakes and building)

BYKHOVSKIY, V.A.; GOL'DENBLAT, I.I.; KORCHINSKIY, I.L.

Standardizing seismic loads; a note. Trudy TSNIISK no.18:205-
206 '62. (MIRA 16:2)

(Earthquakes and building)

L 30034-66 EWT(1)/EWT(m) GW

ACC NR: AP6020119

SOURCE CODE: UR/0097/66/000/001/0033/0036

AUTHOR: Korchinskiy, I. L. (Doctor of technical sciences; Professor); Rzhevskiy, V. A. (Engineer)

ORG: none

TITLE: Investigation of the strength of reinforced concrete constructions under the action of seismic-type loads 37 B

SOURCE: Beton i zhelenobeton, no. 1, 1966, 33-36

TOPIC TAGS: reinforced concrete, dynamic stress, cyclic load, structural steel, seismicity

ABSTRACT: Reinforced concrete constructions were tested for strength under dynamic, random loads similar to seismic loads during earthquakes. Three types of beams were tested, with two types of reinforcement, one stressed. Expressions are developed for the linear dependence of the strength of the beams on the log of the number of stress cycles. The dynamic strength was found in some cases to exceed the static strength for up to 10 cycles of loading, when type St-3 steel reinforcing is used, whereas steel reinforcing type A-IIIv does not produce concrete constructions with dynamic strength greater than the static strength.

Card 1/2

UDC: 624.012.45.042.8

L 30034-66

ACC NR: AP6020119

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824610010

Prestressing had little effect on the strength characteristics of the constructions. The dependence of the strength reduction, upon overloading, on the amount of excess energy expended was found to be linear down to the point of destruction. An expression developed for energy absorbing capacity demonstrates that the calculated energy capacity according to the existing norms is almost always less than the actual energy absorbing capacity determined experimentally. Orig. art. has: 3 figures and 9 formulas. [JPRS]

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 005

Card 2/2 *le*

KORCHINSKIY, I.T. [Korchyns'kyi, I.T.]

Organization of medical supply of the Lvov Railway. Farmatsev.
zhur. 19 no.1:82-85 '64. (MIRA 18:5)

1. Dorshlyakhmedpostachtorg L'vivs'koi zaliznitsi.

KOMOROVSKIY, Yu.T., dotsent (Ternopol', ul.Shevchenko,d.1/54);
KORCHINSKIY, I.Yu.; GORDIYENKO, S.K., dotsent

Method of enteropyssia in postoperative adhesive intestinal
obstruction. Klin.khir. no.7:34-40 J1 '62. (MIRA 15:9)

1. Kafedra obshchey khirurgii (zav. - dotsent Yu.T.Komorovskiy)
Ternopol'skogo meditsinskogo instituta.
(INTESTINES--OBSTRUCTIONS) (INTESTINES--SURGERY)

TROTSSENKO, A.G., otv.red.; PORTNOV, A.I., prof., red.; GORBOV, T.P., red.;
YEVDOKIMOV, D.Ya., red.; KNIZHKO, P.O., red.; KORCHINSKIY, N.O.,
red.; LESHCHINSKIY, A.F., red.; LYASHENKO, S.S., red.; ROZENBERG,
M.A., prof., red.; SAVITSKIY, I.V., prof., red.; SHELUD'KO, V.M.,
red.

[Research in the field of pharmacy] Issledovanie v oblasti far-
matzii. Pod obshchei red. A.I.Portnova. Odessa, M-vo zhdavookhra-
nenia USSR, 1959. 314 p. (MIRA 13:6)

1. Zaporozhskiy gosudarstvennyy farmatsevticheskiy institut. 2. Ka-
fedra organicheskoy khimii Odesskogo gosudarstvennogo farmatsevtichesko-
go instituta (for Trotsenko). 3. Kafedra farmatsevticheskoy khimii
Odesskogo gosudarstvennogo farmatsevticheskogo instituta (for Portnov).
4. Kafedra neorganicheskoy i sudebnoy khimii Odesskogo gos.farmatsevt.
instituta (for Yevdokimov). 5. Kafedra analiticheskoy khimii Odesskogo
gos.farmatsevt.instituta (for Knizhko). Kafedra marksizma-leninizma i
organizatsiya farmdela Odesskogo gos.farmatsevt.instituta (for Kor-
chinskiy). 6. Kafedra biokhimii Odesskogo gos.farmatsevt.instituta (for
Leshchinskiy). 7. Kafedra farmakognozii i tekhnologii lekarstvennykh
form i galenovykh preparatov Odesskogo gos.farmatsevt.instituta (for
Lyashenko). 8. Zaveduyushchiy kafedroy fiziologii i farmakologii Odessko-
go gos.farmatsevt.instituta (for Rozenberg). 9. Zaveduyushchiy kafedroy
biokhimii Odesskogo gos.farmatsevt.instituta (for Savitskiy). 10. Ka-
fedra farmakognozii i botaniki Odesskogo gosudarstvennogo farmatsevti-
cheskogo instituta (for Shelud'ko).

(PHARMACY)

KHEYFETS, L.; KORCHINSKIY, V.; ZELEN'KO, A.

Portable gas heater. Grazhd.av. 16 no.1:29 Ja '59. (MIRA 12:3)
(Heating--Equipment and supplies)
(Airports--Cold weather conditions)

L 04255-67

EWI(m)/T DJ

ACC NR: AP6005377

(N)

SOURCE CODE: UR/0413/66/000/001/0121/0122

AUTHORS: Vul'fson, D. L.; Rubinshteyn, I. I.; Avrekh, D. E.; Val'tsis, U. A.; Korchinskiy, V. K.; Geylman, I. Ya.

ORG: none

TITLE: A continuously variable variator of the number of revolutions of an output shaft. Class 47, No. 177724 [announced by Kiev Machine Construction Plant im. M. I. Kalinin (Kiyevskiy mashinostroitel'nyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 121-122

TOPIC TAGS: bushing, shaft, speed regulator

ABSTRACT: This Author Certificate presents a continuously variable variator of the number of revolutions of an output shaft. The device contains conical sliding disks with control levers on two parallel shafts. The disks are spanned by an endless flexible traction organ, the tension of which is controlled. To reduce the dimensions of the variator without reducing the transmittable power and to increase the stability of the number of revolutions, it is equipped with an additional shaft situated between the shafts with the sliding disks and parallel to them and having a threaded stem. Rigidly attached to the additional shaft are two cams and a bushing, a control nut that rests on the bushing, and a self-stopping screw pair with a worm gear connected to the bushing by a sliding key. The control levers are

Card 1/2

UDC: 621.85--551.4

Card 2/2 fv

GINZBURG, S., inzhener; KORCHINSKIY, Ye., inzhener.

Pulverizing barite through vibration. Prom.koop. no.4:25-26
Ap '56. (MLRA 9:8)

1. Zavod imeni Oktyabr'skoy revolyutsii.
(Barite) (Paint materials)

KORCHINSKIY, Ye. K.

KORCHINSKIY, Ye. K. -- "Investigation of the Process of Injection and Mixing of Producer Gas From Anthracite With Air in Mixing Apparatus for Flameless Gas Burning." Sub 24 Nov 52, Power Engineering Inst imeni G. M. Krzhizhanovskiy, Acad Sci USSR. (Dissertation for the Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January December 1952

KORCHINSKIY, Ye. K.; NATANZON, I. I.

Furnaces

Parameters of injector equipment for heat-treatment furnaces., Sel'khoz mashina, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 195²~~8~~, Unclassified.

VARENETS, P. I.; KORCHINSKIY, YE. K.

Valves; Pumping Machinery

Regulating the delivery of centrifugal pumps with a slide valve. at the intake.

Elek. sta. 23 no. 4, 1952.

Inzh.

SO: Monthly List of Russian Accessions, Library of Congress, August ²1953, Uncl.

1. KORCHINSKIY, Ye. K., ENG.
2. USSR (600)
4. Combustion
7. Meeting on the problem of improving combustion of anthracite and of poor grade coal. Elek. sta. 23, no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. KORCHINSKIY, E. K., Eng.

2. USSR (600)

4. Injectors

7. Determining the best location for the nozzle in the mixing chamber and the optimal length of the neck in injector burner. Sel'khoz-mashina No. 2, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

PATRIN, P.A., inzh.; KORCHINSKIY, Ye.K., kand.tekhn.nauk; VOLCHEGURSKIY, L.A.,
inzh.

Testing double chamber kilns for kilning keramzit. Stroi.mat. 9 no.
12:18-20 D '63. (MIRA 17:3)

KORCINSKI, I.L. [Korchinskiy, I.L.] dr tehn nauka prof.; SMIRNOV, V.
[translator]

Comparison of the norms for computing the seismic influences in
the U.S.S.R. and abroad. Tekhnika Jug 17 no.12:2268-2274 D '62.

VOLKOV, V.V., inzh.; KORCHITS, V.K., inzh.

Quarries and supply of rock products for the construction. Energ.-
stroitel. no.23:124-130 '61. (MIRA 15:1)

1. Zamestitel' nachal'nika stroitel'stva Kremenchugskoy gidroelek-
trostantsii po promyshlennym predpriyatiyam (for Volkov).
(Quarries and quarrying)
(Kremenchug Hydroelectric Power Station--Design and construction)

LOZAN, M.N.; KORCHMAR', M.D.

Materials on the ecology of some predatory animals in the flooded
areas of the Prut River. Okhr. prir. Mold. no.3:140-149 '65.
(MIRA 18:10)

KORCHMAR', Ya.I., dotsent; KADYGROB, M.I.; LEVCHENKO, V.I., starshiy bibliograf; ZYUZ'KO, T.P., bibliograf; KHODNEVA, I.V., red.izd-va; MANVELOVA, Ye.S., tekhn.red.; BEREZSLAVSKAYA, L.Sh., tekhn.red.

[Bibliography on the history of the coal and metallurgical industries of the Donets Basin] Bibliografiya po istorii ugol'noi i metallurgicheskoi promyshlennosti Donbassa. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 74 p. (MIRA 13:11)

1. Russia (1917- R.S.F.S.R.) Luganskiy ekonomicheskii administrativnyy rayon. Sovet narodnogo khozyaystva. 2. Zaveduyushchiy kafedroy istorii Luganskogo gosudarstvennogo pedinstituta (for Korchmar').
3. Zaveduyushchiy bibliotekoy Doma tekhniki Luganskogo sovnarkhoza (for Kadygrob). (Bibliography--Donets Basin--Coal mines and mining)
- (Bibliography--Donets Basin--Metallurgy)

KORCHMAREK, I.A.; STENDER, V.V.

Preparation of copper from residues of ore-dressing plants. Izv.
AN Kazakh.SSR Ser.khim. no.2:32-42 '48. (MIRA 9:7)
(Korchmarek, I.A.) (Stender, V.V.)

KIR'YAKOV, G.Z.; KORCHMAK, I.A.

Role of the film of lead dioxide in the corrosion of a lead anode. Zhur.prikl.
khim. 26 no.9:921-924 S '53. (MLBA 6:10)

(Lead--Corrosion) (Electrodes)

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Metallurgy and Metallography

4
② Met
Corrosion resistance of tungsten-nickel coatings. A. A. Gulik and V. A. Korchmaruk. *Izv. Akad. Nauk Kazakh. S.S.R. No. 123, Ser. Khim. No. 7, 106-10 (1963).*—Mono- and polylayer coatings of W-Ni on Fe were examd. as to corrosion resistance in HCl and H₂SO₄ solns. as well as in NaOH. The coatings were electrodeposited from baths of 10 g. WO₃, 10 g. NiSO₄·7H₂O, 150 g. (NH₄)₂SO₄, 250 ml. 25% NH₄OH, and 750 ml. H₂O. The unsatisfactory protective action of these coatings lies in the porous nature and cracks in the layers, as well as in insufficient chem. resistance of the coatings themselves. The coatings are slightly improved by heat-treatment. Deposition of W-Ni in alternate layers with Ni gave unsatisfactory results.
G. M. Kosolapoff

KORCHMAREK, I. A.

Effect of a lead dioxide film upon the corrosion of a lead anode. O. Z. Kur'yakov and I. A. Korchmarek. *Zhur. Priklad. Khim.* 26, 921-4 (1953); cf. *C.A.* 47, 61821. — Pb anodes alloyed with Ag and different combinations of Sn, Co, Sb, Mn, and Si, and without Ag but with Sn, Sb, Mn, and Al were placed between 2 Al electrodes in a 2N H₂SO₄ soln. and subjected to a polarizing current of 400 amp./sq. m. for 2 weeks. Electrodes without Ag lost more than 10 times as much Pb as those with Ag. The process of corrosion consisted of: film formation of quadrivalent Pb, and salts formed in the electrolyte, which fell off as slime; and the passage of Pb⁺⁺ into the electrolyte and to the cathode. The presence of Ag decreased slime formation and retarded the diffusion of Pb⁺⁺ from the anode to the electrolyte. The addn. of elements forming insol. compds. thickened the film, retarding diffusion. The presence of Mn as an alloy or in the electrolyte did not effect the resistance to corrosion but reduced the amt. of Pb⁺⁺ passing into the electrolyte. The thickness rather than the porosity of the film was the controlling factor, but neither was directly related to the resistance of Pb anodes to corrosion. I. B.

KIR'YAKOV, G.Z.; KORCHMANN, I.A.

Effect of surfactants on electrode processes in lead-sulfate
solutions. Izv.AN Kazakh.SSR.Ser.khim. no.8:54-59 '55.(MIRA 9:4)
(Surface-active agents) (Electrolysis) (Lead sulfamate)

Card 1/1

Depolarization with sulfur dioxide in electrolysis of sulfuric acid solutions. I. A. Roschmarck and G. Z. Kir'yakov. *Izv. Akad. Nauk Kazakh. S.S.S.R. Ser. Khim.* 1956, No. 10, 44-52. — For depolarization of a Pb anode it is possible to use SO_2 , the optimum concn. of which is 3-5% with the rate of supply being such as to insure 100% excess over the theoretical requirement. The loss of H_2SO_4 discharge on a Pb anode with high overvoltage, and the max. drop of anode potential may reach 0.8 v. C anodes can be also depolarized with SO_2 , but the stability of the electrode is attained only with very high rates of supply of SO_2 , with the potential being established at a lower level than with the Pb anode. On the Pb anode the process of oxidation of SO_2 passes through discharge of ions of H_2SO_4 , while on the C electrode there takes place adsorption of SO_2 , which is then oxidized. G. M. Kosolapoff

Chem

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26989

S/138/61/000/005/002/006
AD51 A129

15 9201 // 2211

AUTHORS: Radchenko, I. I., Fisher, S. L., Korchmarek, V. V., Kuznetsov, V. L.,
Bryl', D. G., Lyashch, R. S., Valenina, V. F.

TITLE: Polymerization of butadiene with styrene in emulsion using colophony
soap at a temperature of 5°C

PERIODICAL: Kauchuk i rezina, no. 5, 1961, 5 - 11

TEXT: Several polymerization formulations have been developed, of which only a few are suitable for industrial use. Hydrogene peroxide hydrocarbons are usually used as the initiators and various compounds with reducing properties as activators, such as ferrous sulfate, sodium sulfite, etc. Coagulation of the latex is caused by large quantities of electrolytes. Daksad serves as disperser. Daksad is a neutralized condensation product of naphthalenesulfoacid with formaldehyde. The higher mercaptanes, e.g., dodecylmercaptane and a mixture of C₁₂-C₆, are used as regulator in the production of butadiene-styrene rubbers. The best-known polymerization formulation is iron-pyrophosphate, where a complex formed from the interaction of potassium pyrophosphate with ferrous sulfate is used as activator. Special attention is drawn to the iron-trilon formulation. An increase in the iron

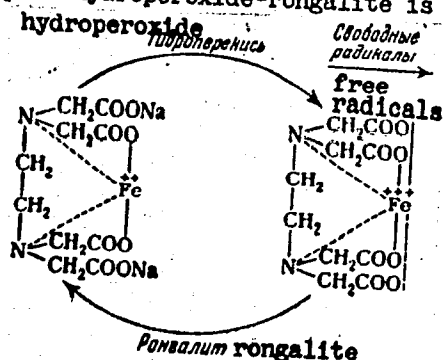
Card 1/5

26989

Polymerization of butadiene with styrene in...

S/138/61/000/005/002/006
AC51/A129

Content in rubber is contra-indicated, since it causes premature oxidation and aging. A complex formed from the interaction of trilon B and ferrous sulfate is used as activator in the iron-trilon formulation. The purpose of the present work was to study the process of polymerization of butadiene with styrene carried out according to the iron-trilon and iron-pyrophosphate formulations, and to perfect these formulations for industrial use. Colophony soap and its mixture with fatty acid soap were used as emulsifiers. The scheme of the mechanism of the action of the system iron-trilon complex-hydroperoxide-rongalite is given:



Card 2/5

Polymerization of butadiene with styrene in... 26989

S/138/61/000/005/002/006
A051'A129

An iron-trilon formulation in two variants: for polymerization with colophony emulsifier and for polymerization with its mixtures with fatty-acid emulsifier at the ratio 1 : 1 was developed on the base of the conducted experiments. The formulations were checked under pilot plant conditions by S. L. Fisher, I. I. Radchenko, A. M. Perminov, E. G. Lazaryants, V. L. Tsaylingol'd et al. (report of VNIISK-NIIMSK, no. 013034, 1960). Four types of experimental batches of butadiene-styrene rubber were prepared: CKC-30APK (SKS-30ARK) with colophony emulsifier (with a hardness of 600 - 800 g not containing mineral oil) and using a mixture of colophony and fatty-acid emulsifier at the ratio of 1 : 1, and also CKC-30AMPK (SKS-30AMRK) with a mixture of colophony and fatty-acid soap at a ratio of 1 : 1, containing 20 w.p. of PH-6 (PN-6) oil with a Defoe hardness of 600 - 800 g (before introducing the oil 1,200 - 1,400 g) and containing 37.5 w.p. of PN-6 oil with a Defoe hardness of 600 - 800 g (before introducing the oil 2,000 - 2,200 g). The prepared rubbers SKS-30ARK and SKS-30AMRK had the following indices:

	SKS-30ARK	SKS-30AMRK-20
content of free colophony acids, %	6.3	5.5
content of bound colophony acids, %	0.35	0.15
iron content, %	0.017	0.012
Defoe hardness, g	540	650

Card 3/5

Polymerization of butadiene with styrene in... 26989

S/138/61/000/005/002/006
A051/A129

	SKS-30ARK	SKS-30AMRK-20
tear resistance, kg/cm ²	281	256
relative elongation, %	680	550
residual elongation, %	24	22
elasticity, %	34	29

The iron-pyrophosphate formulation (report of Giprokauchuk no. 010017, 010851, 010889, 1955-56) was further investigated. For the polymerization of butadiene with styrene the following formulation was used: butadiene ... 70, styrene ... 30, dresinate 731 ... 4.5, hydroperoxide n-methane ... 0.08, FeSO₄·7H₂O ... 0.16, K₄P₂O₇ ... 0.18, sodium ethylenediaminetetraacetate (versen, trilon B) ... 0.01, daksad ... 0.15, Na₃PO₄·12H₂O ... 0.5, tertiary dodecylmercaptane (sulfol B-8) ... 0.18, water ... 200 (in w.p.). It is pointed out that with an increase in the regulating action of the diperoxide the rate of polymerization dropped almost by 1.5 times. When using the monohydroperoxide of diisopropylbenzene the duration of the polymerization was 12 - 14 hrs, when replacing it by hydroperoxide of 1,1-diphenyl-ethane 9 - 10 hrs. On the basis of the conducted work the formulation of iron-pyrophosphate using potassium soap of colophony was developed. This formulation was tested under pilot plant conditions (report of the VNIISK-NIIMSK, no. 013094,

Card 4/5

RADCHENKO, I.I.; FISHER, S.L.; KORCHMAREK, V.V.; KUZNETSOV, V.L.; BRYL',
D.G.; LYASHCH, R.S.; VALENINA, V.F.

Polymerization of butadiene with styrene in an emulsion with the
use of rosin soap at 5°. Kauch.i rez. 20 no.5:5-11 My '61.
(MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy sinteticheskogo kauchuka
im. S.V.Lebedeva.

(Butadiene)

(Polymerization)

S/138/63/000/003/001/008
A051/A126

AUTHORS: Akhmedov, G. G., Radchenko, I. I., Korchmarek, V. V.

TITLE: Polymerization of butadiene with styrene in an emulsion using the oxidation-reduction system hydroperoxide-iron-trilon complex-hydroquinone-sodium sulfite

PERIODICAL: Kauchuk i rezina, no. 3, 1963, 1 - 5

TEXT: A study was conducted on the possibility of using sodium sulfite as one of the components in an oxidation-reduction system. A new variation of the iron-trilon system was developed using sodium sulfite. The role played by the activators of this system was investigated. The experiments were carried out on 93 - 94% butadiene rectificate and 99.5% styrene. Potassium soap of disproportionated colophony was used as emulsifier. The effects of the main factors on the rate of polymerization under the influence of the system hydroperoxide-iron-trilon complex-hydroquinone-sodium sulfite were studied. Experiments showed that the hydroquinone in the investigated system may be replaced by benzoquinone with the same polymerizing effect. The mechanism of the polymerization

Card 1/2

Polymerization of butadiene with...

8/138/63/000/003/001/008
A051/A126

system studied is divided into three stages: 1) reduction of the trilon complex of the tri-valent iron by the hydroquinone, 2) oxidation of the trilon complex of the bi-valent iron forming free radicals of hydroperoxide, in turn causing the polymerization reaction, 3) reduction of the benzoquinone by the sodium sulfite. It is concluded that the newly developed oxidation-reduction system, using iron-trilon complex, hydroquinone and sodium sulfite as activators, can be used in an emulsion at 50°, yielding a high polymerization rate. The system can be used in the production of synthetic rubber. There are 6 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev)

Card 2/2

ACCESSION NR: AP4017160

S/0138/64/000/002/0005/0009

AUTHORS: Akhmedov, G. G.; Radchenko, I. I.; Korchmarek, V. V.

TITLE: Oxidation-reduction system of polymerization. Hydroperoxide-iron-Trilon complex-hydroquinone-sodium sulfite

SOURCE: Kauchuk i rezina, no. 2, 1964, 5-9

TOPIC TAGS: polymerization, rubber polymerization, butadiene styrene polymerization, oxidation reduction system, diisopropylbenzene hydroperoxide, iron Trilon complex, hydroquinone, sodium sulfite, sodium hydrosulfite, sodium hyposulfite, sodium monosulfide

ABSTRACT: This is a continuation of a previous article by the authors (Kauchuk i rezina, No. 3, 1, 1963). The present investigation also includes sodium hydrosulfite and sodium monosulfide. The polymerization was conducted on an emulsion of a mixture consisting, by weight, of 70 parts butadiene and 30 parts styrene at a temperature of 50, using 5.8 parts of potassium rosinate as emulsifier and 0.15 parts of diisopropylbenzene monohydroperoxide as initiator. To the mixture were added 200 parts of water, 1.36 parts of potassium chloride as an electrolyte, and

Card 1/17

ACCESSION NR: AP4017160

0.3 parts Leukanol as a dispersing agent. It was found that at a concentration of 0.60×10^{-3} moles sodium sulfite and 0.1×10^{-3} moles hydroquinone the extent of polymerization reached 60%. A double amount of hydroquinone and 0.65×10^{-3} moles of sodium sulfite raised it to 80%, but no polymerization occurred in the absence of hydroquinone. Sodium hyposulfite was only half as effective as sodium sulfite, and here also the presence of hydroquinone was essential for polymerization. On the other hand, neither sodium sulfide nor sodium hydrosulfite required hydroquinone in their performance, sodium hydrosulfite being the most effective of the series. The effectiveness of the iron-Trilon complex as compared to the iron-o-phenantroline and iron-alpha, alpha'-dipiridyl complexes in the polymerization of the butadiene-styrene emulsion was studied in the presence of hydroquinone and sodium sulfite. The iron-Trilon complex emerged as the most active. Orig. art. has: 5 charts and 2 formulas.

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Card 2/32

KROSS, Sandor; KORCHMAROS, Imre

The conduction anesthesia in eye surgery. Szemeszet 91 no.2:
87-91 Apr 54.

1. A Budapesti Orvostudományi Egyetem II. sz. Szemklinikájának
közleménye. (Igazgató: Monay Tibor egyetemi tanár, az orvostudo-
mányok kandidátusa)

(EYE, surg.

anesth., regional)

(ANESTHESIA, REGIONAL

in eye surg.)

KORCHMAROS, Imre

Medial blepharorrhaphy. Szemeszet 99 no.1:48-50 Mr '62.

1. A Budapesti Orvostudományi Egyetem II sz. Szemklinikájának közleménye.
(Igazgató: Nonay Tibor egyetemi tanár, az orvostudományok kandidátusa)

(EYELIDS surg)

KORCHMAROS, Imre

Surgical therapy of lacrimation due to diverticulum of the lacrimal sac. Szemeszt. 99 no.3:159-162 S '62.

1. A Budapesti Orvostudományi Egyetem II. sz. Szemklinika-jának közleménye
(Igazgató: Nonay Tibor egyetemi tanár, az orvostudományok kandidátusa).
(LACRIMAL APPARATUS dis)

IMRE, Gyorgy; KORCHMAROS, Imre; GECK, Peter

Demonstration of inclusion bodies in epidemic keratoconjunctivitis
by the immunofluorescence method. Preliminary report.
Szemeszet 99 no. 1:25-28 Mr '63

1. A Budapesti Orvostudományi Egyetem II. Szemklinikájának
(Igazgató: Nonay Tibor egyetemi tanár, az orvostudományok
kandidátusa) és a Honvéd Kózegezegugyi és Járanyugyi
és Járanyugyi Állomás közleménye.
(KERATOCONJUNCTIVITIS) (FLUORESCENT ANTIBODY)
(PATHOLOGY)

KORCHMAROS, Imre; IMRE, Gyorgy

On keratoconjunctivitis cases caused by laboratory infection.
Szemeszet 100 no.2:104-107 Je '63.

(KERATOCONJUNCTIVITIS) (OCCUPATIONAL DISEASES)

KORCHMAROS, Imre

A new simple method for the restoration of central fixation.
Szemeszet 100 no.4:237-238 D '63.

1. A Budapesti Orvostudományi Egyetem II. sz. Szemklinikájának
(Igazgató: Nonay Tibor egyetemi tanár) közleménye.

HUNGARY

WORSCHMANN, László, MD; Medical University of Budapest, II Eye Clinic
(Budapesti Orvostudományi Egyetem, II Szemklinikája)

"Extirpation of Eye Lash Hairs Keeping the Epithelium Intact."

Budapest, Orvosi Hetilap, Vol 104, No 3, 20 Jan 63, page 127.

Abstract: The author discusses a new surgical technique for the removal of hairs in trichiasis and distichiasis. Scar formation is slight and the method was successfully used after unsuccessful electrolytic epilation or surgery.
[no references]

1/1

18

1/1

35

KORCHMAROS, Imre, dr.

Epilation of irregular eyelashes with the preservation of the epithelium. Orv. hetil. 104 no.3:127 20 Ja '63.

1. Budapesti Orvostudományi Egyetem, II. Szemklinika.
(EYES)

GECK, Peter,; IMRE, Gyorgy, dr.; KORCHMAROS, Imre, dr.; NASZ, Istvan, dr.;
DAN, Pal, dr.

On specific antigenic properties of inclusion bodies in
epidemic keratoconjunctivitis; (examinations by the immuno-
fluorescent technics). Orv. hetil. 105 no.10:439-441; 10 Mr'64.

1. Honved Kozegeszsegugyi es Jarvanyugyi Allomas; Budapesti
Orvostudomanyi Egyetem, II. Szemklinika es Mikrobiologiai
Intezet.

*

XORCHMAYER, Stanislaw

Investigations of quantitative and qualitative aspects of blood platelets in liver diseases. Polskie arch. med. wewn. 25 no.6: 1081-1094 1955.

1. Z Wojewodskiej Przychodni Chorob Krwi przy II Klinice Chorob Wewnętrznych A.M. w Krakowie. Kierownik naukowy: prof. dr. nauk. med. T. Tempka i ze Szpitala Miejskiego im. M. Biernackiego w Krakowie. Dyrektor: dr. med. Zygmunt Kulig, Krakow, Podwale 2.

(LIVER, diseases;
blood platelets in)
(BLOOD PLATELETS, in various diseases,
liver dis.)

KRUCHENAYA, R. A., LEVINS, I. V., NISHCHENKO, B. D., POPOVA, G. P., SILEKIN,
A. V., TROCHIMAYA, F. M., ANTIKVENDO, G. A., KORYASHENKO, I. K.,
KUSHAUM, D. G., STEPANOVA, A. F., BABOVA, G. I., GALANTONOV, N. S.,
CHMER, V. S., DERNISOVA, G. M., YENDOKINOV, YU. I., ZAKHAROVA, A. A.

"Hygienic characteristics of the day regimen of Moscow school
children."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

24.7000

S/181/62/004/010/021/063
B108/B104

AUTHORS: Korchovey, A., Gika, G., and Greku, D.

TITLE: Distribution of displaced atoms in a solid as caused by a primary atom produced by irradiation

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2777 - 2790

TEXT: Neutrons or charged particles incident on a solid will displace atoms in the lattice if they impart an energy to these that exceeds a certain threshold ϵ_d (~ 25 ev). The displaced primary atoms will then also dis-
place other atoms if their energy is still high enough. Knowing the correlation function of the distribution between the subsequent displacements for the primary atom one can calculate the distribution of all displaced atoms. This is done in the present paper. The correlation function is calculated on condition that an atom remains at its place when its energy is less than ϵ_d . The mean values of the products of the position vector components are calculated. These are used to calculate recurrence formulas for the n-th displacement of the atoms with respect to their (n-1)-st

Card 1/2

Distribution of displaced...

S/181/62/004/010/021/063
B108/B104

displacement. In the case of large n , these formulas lead to Volterra type integral equations. The distribution function of the displaced atoms calculated therefrom already in the third approximation differs very little from the Gaussian distribution function.

ASSOCIATION: Institut atomnqy fiziki, Bukharest (Institute of Atomic Physics, Bucharest) ✓B

SUBMITTED: May 19, 1962

Card 2/2

KOROHOKHA, Yu.M.

Study of the structure of the distribution of velocities in the
stream and channel deformations at the bend of the Polomet' River.
Trudy GGI no.123:53-77 '65. (MIRA 18:10)